DETAILED ACTION

Remarks

1. The final rejection has been withdrawn in response to applicant's amendment filed 01/05/2010.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mark A. Wilson (Reg. No. 43,994) on Jan. 11, 2010.

3. The application has been amended as follows:

In claim **1**, at the very last line, replace "trench" with -- trenches --.

In claim **2**, at lines 1-2, replace "the p-n junction boundary between drain and body region" with – **a boundary of** the p-n junction between drain and body region**s** --. (Emphasis added)

In claim **3**, at the very last line, replace "regions" with -- region -- after "drain."

In claim **6**, at line 4, replace " a trench" with – the gate trenches --.

In claim **7**, at the very last line, delete "of the layer" after "density."

In claim **9**, at the very last line, insert -- first – before "predetermined."

Allowable Subject Matter

4. Claims 1-10 are allowed.

5. The following is an examiner's statement of reasons for allowance:

None of the prior art of record, either taken alone or by combination, teaches or suggests providing a substrate having a low-doped region, the low-doped region having a concentration of less than 5×10^{14} cm^{-3} at the first major surface; and carrying out a diffusion step to form an insulated gate field effect transistor structure in which the body implant diffuses towards the substrate in the low-doped region to form a p-n junction above a drain region and between a body region and the drain region, wherein the body region is doped to have the second conductivity type and the drain region is doped to have the first conductivity type, the p-n junction being deeper below the first major surface between the trenches than at the gate trenches.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hsien-ming Lee whose telephone number is 571-272-1863. The examiner can normally be reached on Monday through Friday (8:30 ~ 17:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hsien-ming Lee/
Primary Examiner
Art Unit 2823

Jan. 13, 2010